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|---|---|---|---|
| Species Tag: | 63001 | Species Name: | HNO3 |
| Version: | 3 | | Nitric acid |
| Date: | Jan. 1991 | | |
| Contributor: | E. A. Cohen | | |
| | | | |
| Lines Listed: | 36551 | Q(300.0)= | 27938.295 |
| Freq. (GHz) < | 2114 | Q(225.0)= | 18150.984 |
| Max. J: | 90 | Q(150.0)= | 9878.703 |
| LOGSTR0= | -9.0 | Q(75.00)= | 3493.815 |
| LOGSTR1= | -7.3 | Q(37.50)= | 1236.801 |
| Isotope Corr.: | 0 | Q(18.75)= | 438.329 |
| Egy. ($cm^{-1}$) > | 0.0 | Q(9.375)= | 155.812 |
| $\mu_a$ = | 1.986 | A= | 13010.9867 |
| $\mu_b$ = | 0.882 | B= | 12099.9025 |
| $\mu_c$ = | | C= | 6260.6680 |

The data set used in this fit is that of R. L. Crownover *et al.*, 1988, J. Quant. Spectrosc. Radiat. Transfer **40**, 39, and references cited therein, and infrared lines measured by K. M. Evenson, 1983, private communication. Unpublished data from Evenson have not been merged into the catalog. There are many unresolved asymmetry multiplets in the data set. For the purpose of fitting, these were usually assigned to a single component. The merged file reflects this. The dipole moment was taken from the remeasurements report by A. P. Cox and J. M. Riveros, 1965, J. Chem. Phys. **42**, 3106. Very small quadrupole splittings were resolvable for only the J = 0 transitions at dry-ice temperatures. Because of the extremely large number of lines for this molecule, these splittings were not included in our predictions. Information on these quadrupole splittings can be found in D. J. Millen and J. R. Morton, 1960, J. Chem. Soc. 1523.